June 9, 1949.

Mr. R. J. Mandle,
Dept. Botany,
U. of Pa.,
Phila. 4, Pa.

Dear Mandle:

Under separate cover, I am taking the liberty of sending you strain A6 of P. tumefaciens, and some "mutants" derived from it by Mr. Donald A. Gordon working in this laboratory. Mr. Gordon kindly offered the enclosed carbon copy of his report , but although he says he will not need it, I think it would be desirable that he get it back at a later date.

If you have not already used it, I think you will find the Aniline Blue medium very useful in two respects. Firstly, it is an excellent simple marker to ensure continuity as Phytomonas and Isospot possible contaminants, and second, mutations to whits, as exemplified on one of the slants, might be used as a genetic color marker. Unfortunately, the blue form mutates to white too frequently for the blue character to be reliable, but on the other hand, white has proven to be very stable and I think could profitably be used. E. G., if a suitable synthetic medium could be devised for demonstrating the reaction, one might pick as recombinants blue prototrophs obtained from mixtures of a blue mutant with a white mutant or prototroph, and be confident that the blue isolate originated from the blue parent or its progeny.

The mutants GI and GII are alike in responding well to sulfide, although they show some differences in their responses to a variety of amino acids. I have presumed, without proof, that the aa response was due to contamination with reduced sulfur. Nevertheless, these mutants might prove to be distinct from the one(s) you have obtained, and if used in concentrations where reversions would not appear, might be suitable for selective recombination expts.

I regret very much that we did not have a better opportunity to discuss your interesting work. With best wishes for further success,

Sincerely,

Joshua Lederberg,
Assistant Professor of Genetics,